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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/526,707	AMBERNY ET AL.
	Examiner	Art Unit
	JAIME M. HOLLIDAY	2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 31 December 2008.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-4 and 6-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-4 and 6-15 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input type="checkbox"/> Other: _____ .

Response to Arguments

Applicant's arguments filed December 31, 2008 have been fully considered but they are not persuasive.

Applicants basically argue that the previous Office Action does not set forth a *prima facie* case of obviousness, because Shaver, at least in part, is unavailable as prior art. In particular, Applicants argue that the cited portion of Shaver "such a communication link, or bridge, is enabled by the built-in address fields in the 802.11 MAC frames, and is transparent to layers above the MAC; the 802.11 MAC data frames have up to four address fields, each specifying a source address (SA) a transmitter address (TA), a receiver address (RA), and a destination address (DA). The access point can forward a data frame received from a communication link (such as on a wireless medium) to another communication link (such as on a wireline medium) based on the SA and DA values received in the frame, thereby bridging the two subnetworks comprising these two links" is not available as prior art since the provisional applications in which Shaver claims priority do not disclose the structure of the 892.11 MAC frames nor the address fields used to bridge the two subnetworks comprising the links.

Examiner respectfully disagrees, because both Provisional Application # 60/331616 and Provisional Application # 60/341168 clearly disclose station-to-station (source and destination) communication using the 802.11 standard. Also, the provisional applications disclose interconnecting (bridging) communications between wireless and wireline stations (two subnetworks). The MAC layer process frames (802.11 MAC frames). Also, the connection between primary and secondary APs

wherein one uses wireless and the other uses wireline medium. In particular, Provisional Application # 60/341168 specifically discloses a communication link, or bridging, is enabled by the built-in address fields in the 802.11 MAC frames. The structure of MAC frames is well known in the art. Further, since the provisional applications explicitly disclose communications between stations, wherein it is inherent that there is a source of the message and a destination for the message, and the frames include address fields, the provisional applications disclose the above-mentioned citation.

Therefore, the above-mentioned cited portion from the Shaver reference properly receives benefit of the priority dates of the provisional applications.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. **Claims 1, 2, 5-9, 13 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shaver et al. (US 6,947,736 B2)** in view of **Lesguillier et al. (U.S. Patent # 6,727,804 B1)**, and in further view of **Folger et al. (U.S. Patent # 5,337,044)**.

Consider **claim 1**, Shaver et al. clearly show and disclose a central base for a private wireless local area network (home networking method and system is based on the IEEE 802.11 wireless networking standard expanded to encompass home phone line media communication and/or home power line media communication operation seamlessly [abstract]), the central base comprising an electronic central unit that is supplied with electricity by at least one live supply line intended to be connected to an external electricity power source, said electronic central unit adapted to communicate with a public telecommunication network via a plain old telephone service (POTS) connection, and with at least one wireless peripheral device, according to a digital bidirectional wireless protocol for a private wireless local area network (access point **250** includes three AFEs (analog front end) each adapted to communicate with a different one of the medium types; an AFE specific for each of wireless, phone line, and power line can be included the access point; one AFE can be included for wireless operating at either 2.4 GHz or 5.0 GHz, one for phone line operating in a 20 MHz band above 2 MHz over standard home phone wiring, and one for power line operating in a 20 MHz band above 2 MHz [fig. 2, col. 3 lines

45-65]); an interface circuit which is controlled by the electronic central unit of said central base and which is connected to said supply line, wherein the electronic central unit is adapted to communicate messages between either one of the public communication network or the at least one wireless peripheral device and the power supply line (the access point includes three AFEs each adapted to communicate with a different one of the medium types discussed; the terminal devices include power line stations **212**, phone line stations **222** and wireless stations **232** in which station-to-station transmission between wireless and wired terminals are enabled via the intelligent access point [fig. 2, col. 3 lines 17-21, 62-64]), and wherein the central base suitable for sending outgoing messages at least to the public telecommunication network and for receiving incoming messages at least from said public telecommunication network, the electronic central unit of the central base being suitable for: (a) recognizing at least certain incoming messages intended for an external interface module, called service messages, and for causing to be generated on the supply line, by said interface circuit of the central base, a message corresponding to each incoming service message, (b) and when it receives a message received by the interface circuit of the central base on the supply line, determining whether this message must be transmitted to the outside and, in this case, sending an outgoing message, called outgoing service message, corresponding to the message received (the MAC **312** is the data link sublayer that is responsible for transferring data to and from the physical layer **314** and provides the protocol

and control to enable access to each of the home mediums; an AFE includes the transmitter, receiver and other typical hardware/software providing the interface between a specific medium and the physical layer for encoding/decoding and modulating/demodulating; the access point coordinates and interconnects access between any user stations connected to the same or different media within HomeAll; such a communication link, or bridge, is enabled by the built-in address fields in the 802.11 MAC frames, and is transparent to layers above the MAC; the 802.11 MAC data frames have up to four address fields, each specifying a source address (SA), a transmitter address (TA), a receiver address (RA), and a destination address (DA); the access point can forward a data frame received from a communication link (such as on a wireless medium) to another communication link (such as on a wireline medium) based on the SA and DA values in the received frame, thereby bridging the two subnetworks comprising these two links [col. 3 lines 35-40; 49-53, col. 4 lines 30-44]).

However, Shaver et al. fail to specifically disclose that an interface circuit adapted to send and receive messages on said supply line, and further adapted to send and receive high frequency periodic signals representative of sent and received messages.

In the same field of endeavor, Lesguillier et al. clearly show and disclose an interface circuit adapted to send and receive messages on said supply line, and further adapted to send and receive high frequency periodic signals representative of sent and received messages (power line communication

system includes a transmitter and a receiver, both providing a communication path between two communication control devices over a power line [abstract]; the receiver has a carrier sense function, and with this carrier sense function, when in the receiving mode, a reference signal mixes with the incoming communication signal; if the received signal on the power line is lower than the reference signal, the communication control device performs correct demodulation of the reference signal, and the received signal is seen as noise; however, if the received signal on the power line is higher than the reference signal, demodulation errors occur at the communication control device, thereby indicating that the received signal is an actual message, [col. 2 lines 1-12]); and a low-pass filter adapted to filtering said high frequency periodic signals received from the supply line between the interface circuit of the central base and at least a portion of the electronic circuits of the central base (when the transmitter (1) is active, a communication signal (2) generated by the communication control device enters the transmitter (1) through its signal input. The communication signal (2) is referred to as the "PL_TX" input signal (2) hereafter. The communication signal (2) is preferably first sent through a low-pass band filter (3) to eliminate high frequencies, [col. 3 lines 20-30]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a low-pass filter to block high frequencies as taught by Lesguillier et al. in the method of Shaver et al., in order to implement a home network using multiple protocols.

However, Shaver et al., as modified by Lesguillier et al., fail to specifically disclose that information (messages) sent and received are alphanumeric messages.

In the same field of endeavor, Folger et al. clearly show and disclose alphanumeric message (a system for remote control of a mobile computer system from a base computer system, where the base system generates control command tokens, which are broadcast over a pager system. The base station might be a desktop computer, perhaps connected to a local area network. A command may be issued by the computer such as someone typing an alphanumeric message using a telephone keypad [abstract, col. 3 lines 61-67, col. 6 lines 5-11]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made send alphanumeric messages as commands from a computer or telephone as taught by Folger et al. in the communication method of Shaver et al., as modified by Lesguillier et al., in order to implement a home network using multiple protocols.

Consider **claim 2**, the combination of Shaver et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention **as applied to claim 1 above**, and in addition, Shaver et al. further disclose in which the interface circuit of the central base is installed in drop and insert mode on said supply line (the AFEs are interchangeably connectable to each type of station and the access point [col. 3 lines 55-57]).

Consider **claim 6**, the combination of Shaver et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention **as applied to claim 1 above**, and in addition, Shaver et al. further disclose sending outgoing messages to at least one wireless peripheral device by using said wireless protocol, and for receiving incoming messages from said wireless peripheral device (terminal devices include power line stations, phone line stations and wireless stations in which station-to-station transmission between wireless and wired terminals are enabled via an intelligent access point [col. 3 lines 17-21]).

However, Shaver et al., as modified by Lesguillier et al., fail to specifically disclose that information (messages) sent and received are alphanumeric messages.

Folger et al. further disclose alphanumeric message (command may be issued by the computer such as someone typing an alphanumeric message using a telephone keypad [abstract, col. 3 lines 61-67, col. 6 lines 5-11]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made send alphanumeric messages as commands from a computer or telephone as taught by Folger et al. in the communication method of Shaver et al., as modified by Lesguillier et al., in order to implement a home network using multiple protocols.

Consider **claim 7**, the combination of Shaver et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention **as**

applied to claim 1 above, and in addition, Shaver et al. further disclose that wireless device comprising a central base and an external interface module, distinct from the central base, which itself comprises: an electronic central unit, and an interface circuit controlled by said electronic central unit of the external interface module and which is connected to said supply line, this interface circuit of the external interface module being suitable for communicating with the interface circuit of the central base by sending and receiving messages on said supply line (the access point includes three AFEs each adapted to communicate with a different one of the medium types discussed; a power line station **212** only includes an AFE adapted to communicate with the power line medium; the same (or substantially the same) digital transceiver section **310** and higher layer protocols can be used in each station **212**, **222** and **232**, and in access point; with an access point adapted to communicate with all three medium types, each type of terminal device (station) can communicate station-to-station with different types of terminal devices via the access point [col. 3 line 62- col. 4 line 10]).

Consider **claim 8**, the combination of Shaver et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention **as applied to claim 7 above**, and in addition, Shaver et al. further disclose in which the interface circuit of the external interface module is installed in drop and insert mode on said supply line (the AFEs are interchangeably connectable to each type of station and the access point [col. 3 lines 55-57]).

Consider **claim 9**, the combination of Shaver et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention **as applied to claim 7 above**, and in addition, Shaver et al. further disclose interface circuit of the external interface module, and an electricity supply device intended to connect said supply line to the external electricity power source (the access point includes three AFEs each adapted to communicate with a different one of the medium types discussed; the terminal devices include power line stations **212**, phone line stations **222** and wireless stations **232** in which station-to-station transmission between wireless and wired terminals are enabled via the intelligent access point; a power line station **212** only includes an AFE adapted to communicate with the power line medium [fig. 2, col. 3 lines 17-21, 62-64, col. 4 lines 1-2]).

However, Shaver et al. fail to specifically disclose interface circuit of the external interface module is suitable for sending and receiving high frequency periodic signals representative of messages sent and received, and an electricity supply device intended to connect said supply line to the external electricity power source; low-pass filter suitable for filtering said high frequency periodic signals.

Lesguillier et al. further disclose interface circuit of the external interface module is suitable for sending and receiving high frequency periodic signals representative of messages sent and received, and an electricity supply device intended to connect said supply line to the external electricity power source; low-

pass filter suitable for filtering said high frequency periodic signals (if the received signal on the power line is lower than the reference signal, the communication control device performs correct demodulation of the reference signal, and the received signal is seen as noise. However, if the received signal on the power line is higher than the reference signal, demodulation errors occur at the communication control device, thereby indicating that the received signal is an actual message. When the transmitter (1) is active, a communication signal (2) generated by the communication control device enters the transmitter (1) through its signal input. The communication signal (2) is referred to as the "PL_TX" input signal (2) hereafter. The communication signal (2) is preferably first sent through a low-pass band filter (3) to eliminate high frequencies [col. 2 lines 1-12, col. 3 lines 20-30]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a low-pass filter to block high frequencies as taught by Lesguillier et al. in the communication method of Shaver et al., in order to implement a home network using multiple protocols.

Consider **claim 13**, the combination of Shaver et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention **as applied to claim 7 above**, and in addition, Shaver et al. further disclose external electronic device distinct from the external interface module and communicating with the electronic central unit of said external interface module (power line

station can also include a repeater section **255** adapted to communicate directly with a wireless station **232** within the HomeAll **200** [col. 4 lines 12-15]).

Consider **claim 15**, the combination of Shaver et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention **as applied to claim 7 above**, and in addition, Shaver et al. further disclose a central base, and in which the electronic central unit of the external interface module is suitable for causing messages intended to be sent by the central base in the form of outgoing service messages to be generated on the supply line, by the interface circuit of said external interface module (power line station can also include a repeater section adapted to communicate directly with a wireless station within the HomeAll; the repeater section only provides for access between one type of wired medium and the wireless medium, where the access point coordinates accesses to all wired and wireless medium; the repeater section then serves to extend the network reach to wireless station which can not access the access point directly; a power line station adapted with a repeater section can communicate directly with wireless stations as well as with other power line stations, and station-to-station with phone line stations via the access point [col. 4 lines 30-45]).

4. **Claims 3 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Shaver et al. (US 6,947,736 B2)** and **Lesguillier et al. (U.S.**

Patent # 6,727,804 B1 in view of **Folger et al. (U.S. Patent # 5,337,044)**, and in further view of **De Ruijter et al. (Pub # U.S. 2005/0036568 A1)**.

Consider **claims 3 and 10**, and **as applied to claims 1 and 7 above**, respectively, the combination of Shaver et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention except an interface circuit of the central base (external interface module) is suitable for sending and receiving periodic signals at a frequency lying between 100 and 500 kHz.

In the same field of endeavor, De Ruijter et al. clearly show and disclose an interface circuit of the central base (external interface module) is suitable for sending and receiving periodic signals at a frequency lying between 100 and 500 kHz (a data slicer circuit for extracting data from a received analogue signal, the received analogue signal having a preamble of a predetermined preamble frequency and a data portion with the data, the data portion having a predetermined data frequency, wherein the circuit comprises a low pass filter for obtaining a signal representing a DC value (Vdc) of the received signal. During reception of the data 3db cut-off frequency of the low-pass filter is set to 100 Hz, [paragraphs 5, 8]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a low-pass filter set to 100Hz as taught by De Ruijter et al. in the communication method of Shaver et al. and

Lesguillier et al., as modified by Folger et al., in order to implement a home network using multiple protocols.

5. **Claims 4 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Shaver et al. (US 6,947,736 B2)** and **Lesguillier et al. (U.S. Patent # 6,727,804 B1)** in view of **Folger et al. (U.S. Patent # 5,337,044)**, and in further view of **Johnston et al. (U.S. Patent # 5,787,360)**.

Consider **claims 4 and 11**, and **as applied to claims 1 and 7 above**, respectively, the combination of Shaver et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention except that the interface circuit is controlled by a serial interface controller.

In the same field of endeavor, Johnston et al. clearly show and disclose an interface circuit of the central base is controlled by the electronic central unit of the central base via a serial interface controller (in a mobile communications system each radio unit is associated with a 'home' station, and each base station has a LAN interface for connection to a local area network. The base station **12** includes a microprocessor, radio interface, telephone interface, a LAN interface, and a serial interface that contains a UART, [abstract, col. 10 line 22- col. 11 line 11]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a UART within the base station as taught by Johnston et al. in the communication method of Shaver et al. and

Lesguillier et al., as modified by Folger et al., in order to convert between data received over the associated link and data signals propagating in bit-serial form (Johnston et al.; col. 11 lines 5-9).

6. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Shaver et al. (US 6,947,736 B2)** and **Lesguillier et al. (U.S. Patent # 6,727,804 B1)** in view of **Folger et al. (U.S. Patent # 5,337,044)**, and in further view of **Watler et al. (U.S. Patent # 6,836,655 B1)**.

Consider **claim 12**, and **as applied to claim 7 above**, the combination of Shaver et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention except a central base and the external interface module are suitable for communicating together according to a half-duplex asynchronous protocol.

In the same field of endeavor, Watler et al. clearly show and disclose a central base and the external interface module are suitable for communicating together according to a half-duplex asynchronous protocol (an interlink receiver system and receiver unit for remote encoding of wireless phone units. The interlink receiver is plugged into the phone unit by removing the battery pack and seating a SIM card in the handset with the electrical contacts of the SIM card in contact with the terminal contacts of the phone unit. The phone unit complies with a communication protocol in ISO 7816 to exchange data and code commands with the SIM card, [abstract, col. 9 lines 22-39]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to communicate using ISO7816 standards (half-duplex asynchronous protocol) as taught by Watler et al. in the communication method of Shaver et al. and Lesguillier et al., as modified by Folger et al., in order to implement a home network using multiple protocols.

7. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Shaver et al. (US 6,947,736 B2)** and **Lesguillier et al. (U.S. Patent # 6,727,804 B1)** in view of **Folger et al. (U.S. Patent # 5,337,044)**, and in further view of **Griffin et al. (Pub # U.S. 2004/0063456 A1)**.

Consider **claim 14**, and **as applied to claim 13 above**, the combination of Shaver et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention except an external electronic device is chosen from a sensor, an actuator and a centralized command and control device suitable for being connected to a plurality of sensors and actuators.

In the same field of endeavor, Griffin et al. clearly show and disclose an external electronic device is chosen from a sensor, an actuator and a centralized command and control device suitable for being connected to a plurality of sensors and actuators (the communication device may include a camera component for displaying or sending video images to the communication device user, or could include sensory circuits for monitoring the communication device user's vital information such as pulse and blood pressure. A nurse or doctor in a

hospital floor could wear the first component, while the second might be in a patient's room monitoring some vital statistics. The short-range communication in this example might reach several hundred feet and several second components might be communicating to a single first component. This information could then be relayed on from the first component worn by the nurse or doctor to a central nursing station for all nurses on duty to see and monitor [abstract, paragraph 57]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have multiple devices communicate with each other as taught by Griffin et al. in the communication method of Shaver et al. and Lesguillier et al., as modified by Folger et al., in order to implement a home network using multiple protocols.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAIME M. HOLLIDAY whose telephone number is (571)272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jaime M Holliday/
Examiner, Art Unit 2617

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617